

Claim Amendments

Please amend the claims as follows:

1. (Currently Amended) A method of printing an impositioned document, comprising the steps of:

receiving source data a print job including page content of the impositioned document;
creating a first imposition layout of the impositioned document based on the page content;
receiving a first job ticket generated from the source data page content, the first job ticket having including a first- an identifier identifying a resource ~~of the document included in the impositioned document~~ and layout information describing [[a]] the first imposition layout of the resource in the impositioned document;
determining whether the resource is locally stored on a printing device;
generating a second identifier associated with the resource from the source data, the second identifier locally recognizable by a printing device;
associating the second identifier with the first identifier;
storing the second identifier remotely from the printing device;
storing the resource locally [[to]] on the printing device responsive to determining that the resource is not locally stored on the printing device;
printing the impositioned document based on the first job ticket using the resource locally stored on the printing device; the stored resource according to the layout information;
receiving a second job ticket referencing the identifier of the resource in the impositioned document; and
printing the impositioned document based on the second job ticket using the resource locally stored on the printing device.

2. (Currently Amended) The method of claim 1, wherein:

the source data is received in a print optimizer and the second identifier is stored in the print optimizer;
the job ticket is generated by an impositioning module;
wherein the resource comprises a page of the impositioned document.

3. (Currently Amended) The method of claim 1, wherein ~~the step of generating a second identifier associated with the resource comprises the steps of:~~

~~determining if the resource is a new resource;~~

~~generating the second identifier and associating the second identifier with the resource only if the resource is a new resource.~~

the second job ticket includes second layout information describing a second
impositioning layout of the resource in the impositioned document.

4. (Currently Amended) The method of claim 1, ~~further comprising the step of:—~~

~~converting the resource to a printing device-renderable form if the resource is not in the
printing device-renderable form.~~

wherein the impositioned document comprises variable data, and the method further
comprises the step of:

augmenting the first or second job ticket with the variable data.

5. (Currently Amended) The method of claim 4, wherein ~~the printing device-renderable form is
compliant with a page description language.~~

the step of augmenting the first or second job ticket with variable data comprises the
steps of:

receiving the page content including variable data tags;

determining customized data corresponding with the variable data tags;

inserting the customized data into the first or second job ticket; and

printing the impositioned document using the customized data in the first or second job
ticket, the customized data replacing the variable data tags.

6. (Currently Amended) The method of claim 1, wherein ~~the resource is stored in a memory of the printing device or in a memory of a print server communicatively coupled between the print optimizer and the printing device.~~

determining whether the resource is locally stored on the printing device comprises the steps of:

determining a checksum of the resource;

comparing the checksum of the resource to other checksums of resources locally stored on the printing device; and

determining that the resource is locally stored on the printing device if another checksum matches the checksum of the resource.

7. (Currently Amended) The method of claim 1, ~~wherein the resource is stored locally to the printing device only if the resource is not already stored locally to the printing device.~~

further comprising the step of:

converting the resource to a printer-renderable format if the resource is not in the printer-renderable format.

8. (Currently Amended) The method of claim ~~7~~, ~~1~~, ~~further comprising the steps of:~~

~~receiving a second job ticket having the first identifier and second layout information describing a second layout of the resource in the document;~~

~~transforming the first identifier into the second identifier; and~~

~~printing the stored resource according to the second layout information;~~

wherein the printer-renderable format is compliant with a page description language.

9. (Currently Amended) The method of claim 1, wherein ~~the imposed document comprises variable data, and the method further comprises the steps of:~~

~~augmenting the job ticket with the variable data.~~

the resource is stored in a memory of the printing device or in a memory of a print server communicatively coupled to the printing device.

10. (Currently Amended) The method of claim 1, 9, wherein the step of augmenting the job ticket with the variable data comprises the step of:

~~accepting source data having a variable data tag;~~

~~associating the first identifier with the variable data tag;~~

~~replacing variable data tags with variable data or a reference to the variable data; and~~

~~augmenting the job ticket with the variable data or the reference to the variable data.~~

further comprising the step of:

normalizing the resource into a series of pages.

11. (Currently Amended) An apparatus for printing an impositioned document, comprising:

means for receiving source data a print job including page content of the impositioned document;

means for creating a first imposition layout of the impositioned document based on the page content;

means for receiving a first job ticket generated from the source data page content, the first job ticket having including a first- an identifier identifying a resource of the document included in the impositioned document and layout information describing [[a]] the first imposition layout of the resource in the impositioned document;

means for determining whether the resource is locally stored on a printing device;

means for generating a second identifier associated with the resource from the source data, the second identifier locally recognizable by a printing device;

associating the second identifier with the first identifier;

means for storing the second identifier remotely from the printing device;

means for storing the resource locally [[to]] on the printing device responsive to determining that the resource is not locally stored on the printing device; and

means for printing the impositioned document based on the first job ticket using the resource locally stored on the printing device; the stored resource according to the layout information

means for receiving a second job ticket referencing the identifier of the resource in the impositioned document; and

means for printing the impositioned document based on the second job ticket using the resource locally stored on the printing device.

12. (Currently Amended) The apparatus of claim 11, wherein:

the source data is received in a print optimizer and the second identifier is stored in the print optimizer;

the job ticket is generated by an impositioning module.

the resource comprises a page of the impositioned document.

13. (Currently Amended) The apparatus of claim 11, wherein ~~the means for generating a second identifier associated with the resource comprises:~~

~~means for determining if the resource is a new resource;~~

~~means for generating the second identifier and associating the second identifier with the resource only if the resource is a new resource.~~

the second job ticket includes second layout information describing a second impositioning layout of the resource in the impositioned document.

14. (Currently Amended) The apparatus of claim 11, wherein the impositioned document comprises variable data, and the apparatus further comprising comprises:

means for augmenting the first or second job ticket with the variable data.

means for converting the resource to a printing device renderable format if the resource is not in the printing device renderable form.

15. (Currently Amended) The apparatus of claim ~~[[14]]~~ 11, ~~further comprising wherein the printing device renderable form is compliant with a page description language.~~

means for receiving the page content including variable data tags;

means for determining customized data corresponding with the variable data tags;

means for inserting the customized data into the first or second job ticket; and

means for printing the impositioned document using the customized data in the first or second job ticket, the customized data replacing the variable data tags.

16. (Currently Amended) The apparatus of claim 11, ~~wherein the resource is stored in a memory of the printing device or in a memory of a print server communicatively coupled between the print optimizer and the printing device;~~

further comprising:

means for determining a checksum of the resource;

means for comparing the checksum of the resource to other checksums of resources

locally stored on the printing device; and

means for determining that the resource is locally stored on the printing device if another checksum matches the checksum of the resource.

17. (Currently Amended) The apparatus of claim 11, ~~wherein the resource is stored locally to the printing device only if the resource is not already stored locally to the printing device;~~

further comprising:

means for converting the resource to a printer-renderable format if the resource is not in the printer-renderable format.

18. (Currently Amended) The apparatus of claim ~~[[11]] 17,~~ ~~further comprising:~~

~~means for receiving a second job ticket having the first identifier and second layout information describing a second layout of the resource in the document;~~

~~means for transforming the first identifier into the second identifier; and~~

~~means for printing the stored resource according to the second layout information.~~

wherein the printer-renderable format is compliant with a page description language.

19. (Currently Amended) The apparatus of claim 11, ~~wherein the impositioned document comprises variable data, and the method further comprises the steps of:~~

the resource is stored in a memory of the printing device or in a memory of a print server communicatively coupled to the printing device.

20. (Currently Amended) The apparatus of claim [[19]] 11, wherein the means for augmenting the job ticket with the variable data comprises:

means for accepting source data having a variable data tag;

means for associating the first identifier with the variable data tag;

means for replacing variable data tags with variable data or a reference to the variable data; and

means for augmenting the job ticket with the variable data or the reference to the variable data;

further comprising:

normalizing the resource into a series of pages.

21. (Currently Amended) A computer-readable medium, tangibly embodying at least one program of instructions executable by the computer to perform method steps of printing an impositioned document, the method steps comprising the steps of:

receiving source data a print job including page content of the impositioned document;
creating a first imposition layout of the impositioned document based on the page content;

receiving a first job ticket generated from the source data page content, the first job ticket having including a first- an identifier identifying a resource of the document included in the impositioned document and layout information describing [[a]] the first imposition layout of the resource in the impositioned document;

determining whether the resource is locally stored on a printing device;
generating a second identifier associated with the resource from the source data, the second identifier locally recognizable by a printing device;
associating the second identifier with the first identifier;
storing the second identifier remotely from the printing device;
storing the resource locally [[to]] on the printing device responsive to determining that the resource is not locally stored on the printing device;

printing the impositioned document based on the first job ticket using the resource locally stored on the printing device; the stored resource according to the layout information;

receiving a second job ticket referencing the identifier of the resource in the impositioned document; and

printing the impositioned document based on the second job ticket using the resource locally stored on the printing device.

22. (Currently Amended) The computer-readable medium of claim 21, wherein:

the source data is received in a print optimizer and the second identifier is stored in the print optimizer;

the job ticket is generated by an impositioning module;

the resource comprises a page of the impositioned document.

23. (Currently Amended) The computer-readable medium of claim 21, wherein ~~the method step of generating a second identifier associated with the resource comprises method steps of:~~

~~determining if the resource is a new resource;~~

~~generating the second identifier and associating the second identifier with the resource only if the resource is a new resource.~~

the second job ticket includes second layout information describing a second
impositioning layout of the resource in the impositioned document.

24. (Currently Amended) The computer-readable medium of claim 21, wherein ~~the method steps further comprise the step of:~~

~~converting the resource to a printing device-renderable form if the resource is not in the printing device-renderable form.~~

wherein the impositioned document comprises variable data, and the method steps further
comprise:

augmenting the first or second job ticket with the variable data.

25. (Currently Amended) The computer-readable medium of claim 24, wherein ~~the printing device-renderable form is compliant with a page description language.~~

the method step of augmenting the first or second job ticket with variable data further
comprises:

receiving the page content including variable data tags;

determining customized data corresponding with the variable data tags;

inserting the customized data into the first or second job ticket; and

printing the impositioned document using the customized data in the first or second job
ticket, the customized data replacing the variable data tags.

26. (Currently Amended) The computer-readable medium of claim 21, wherein ~~the resource is stored in a memory of the printing device or in a memory of a print server communicatively coupled between the print optimizer and the printing device.~~

the method step of determining whether the resource is locally stored on the printing device further comprises:

determining a checksum of the resource;

comparing the checksum of the resource to other checksums of resources locally stored on the printing device; and

determining that the resource is locally stored on the printing device if another checksum matches the checksum of the resource.

27. (Currently Amended) The computer-readable medium of claim 21, wherein ~~the resource is stored locally to the printing device only if the resource is not already stored locally to the printing device.~~

the method steps further comprise:

converting the resource to a printer-renderable format if the resource is not in the printer-renderable format.

28. (Currently Amended) The computer-readable medium of claim ~~[[21]]~~ 27, wherein ~~the method steps further comprise the steps of:~~

~~receiving a second job ticket having the first identifier and second layout information describing a second layout of the resource in the document;~~

~~transforming the first identifier into the second identifier; and~~

~~printing the stored resource according to the second layout information;~~

wherein the printer-renderable format is compliant with a page description language.

29. (Currently Amended) The computer-readable medium of claim 21, wherein ~~the imposed document comprises variable data, and the method steps further comprise the steps of:~~

~~augmenting the job ticket with the variable data.~~

the resource is stored in a memory of the printing device or in a memory of a print server communicatively coupled to the printing device.

30. (Currently Amended) The computer-readable medium of claim 29, wherein the method steps
~~step of augmenting the job ticket with the variable data comprises the step of:~~

~~accepting source data having a variable data tag;~~

~~associating the first identifier with the variable data tag;~~

~~replacing variable data tags with variable data or a reference to the variable data; and~~

~~augmenting the job ticket with the variable data or the reference to the variable data.~~

further comprise:

normalizing the resource into a series of pages.

31. (Cancelled)

32. (Cancelled)

33. (Cancelled)